

Interoffice Communication

To John Friend
From David H. Jones
Date April 2, 1976
Subject Oxychlorination Water By-Pass of T-103
Design No: 75-100-376-DHJ

*Put from water in
acid wash pump section*

Attached are the process modifications required to bypass the oxychlorination water from the EDC acid wash tank, T-103, to the steam stripper feed drum, T-110.

Information received from Shell indicates that their Light Ends column fouling was substantially reduced by bypassing the oxychlorination water from the EDC acid wash system. Shell reports that washing may be accomplished by adding fresh water to T-103 with residual chlorine and hydrogen chloride in the EDC providing sufficient acidity for ferric chloride removal. Shell adds approximately 10 GPM process water to T-103 to hold the concentration of HCl at 0.5% in the water layer. Shell is doing this in both their plants. Also, they claim slightly reduced caustic consumption.

Minor piping modifications will allow bypassing the oxychlorination water from T-103 to the neutralization pit, T-252, or T-110 once it is installed. There is an existing process water connection to T-103A with a rotameter which will allow the acid strength of the water layer of T-103A to be controlled at 0.5% HCl. The water layer of T-103A will be analyzed once per shift for acid strength and the EDC layer analyzed for FeCl_3 once per shift. During the first startup of this wash system, both the water and EDC phases will be analyzed more frequently to better monitor this wash change. An existing 1" valve on the line from T-103A to P-110, acid wash circulating pump, will be used for the water sample point.

Since the oxychlorination water contains approximately 20 GPM EDC from S-306 and S-307, a level controller and control valve will be installed to control the EDC level in T-110. The existing level transmitter, LT-115B, on T-110 will be used and a surplus control valve and controller will be installed in the discharge line of P-255. The level controller will be locally mounted during the test. If the test proves successful the level controller will be board mounted.

David H. Jones

David H. Jones

Approved By *Jim Robinson*

bw

CC:

JAD-JF(5)-JRH(4)-CEG-JHM-DWL

CCR 000039067

FLOW CHART AND BLOCK DIAGRAM

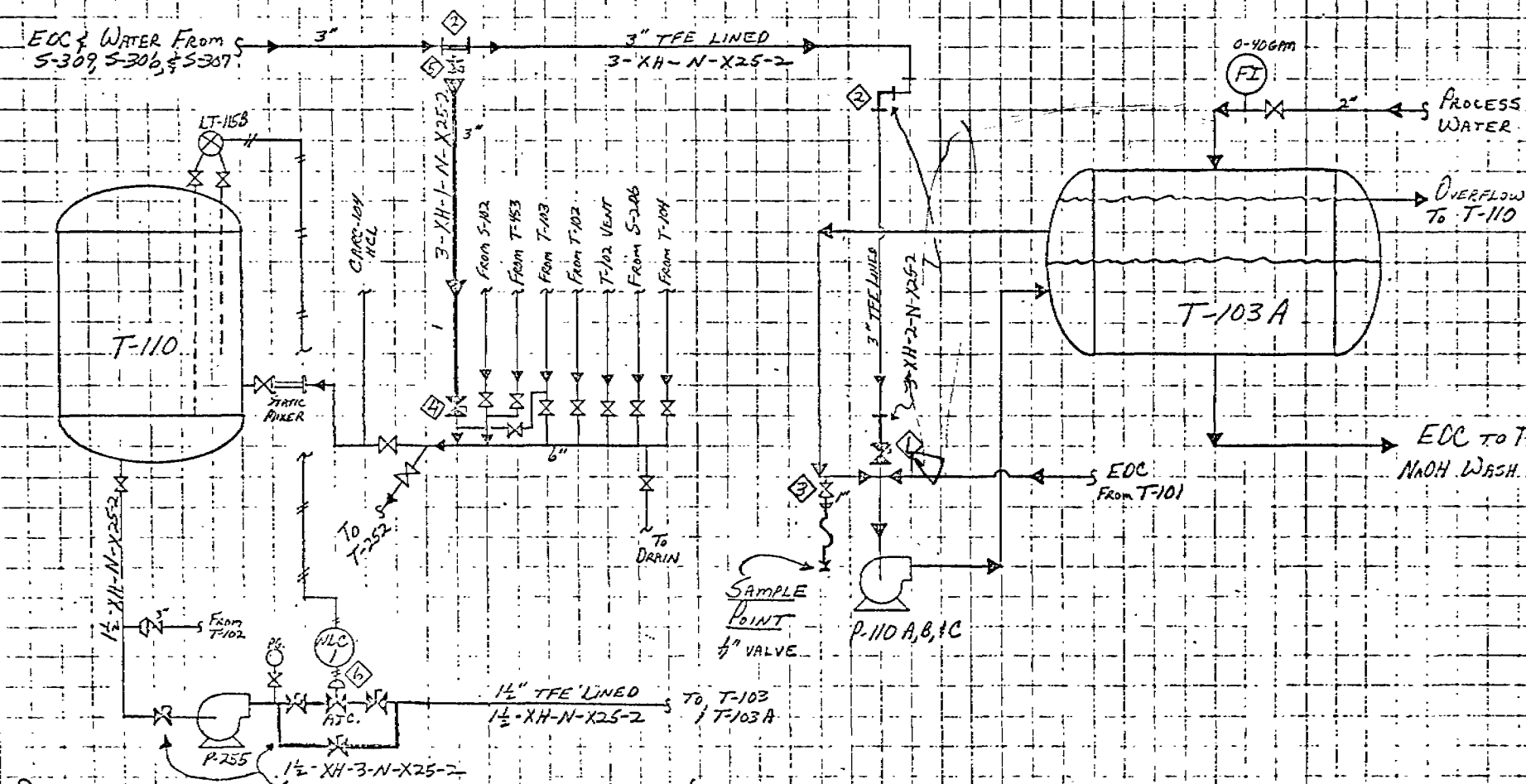
Application Processing Over White Form File No. 10, 1976 Page 1 of 1
 Procedure Design No. 75-100-376-D.H.T. Drawn By D.H.T.

LEGEND:

 EXISTING
 NEW
 NOTE NO.
 CONTROL VALVE
 TFE LINED PLUG VALVE
 LC
 LEVEL CONTROLLER

NOTE:

1. INSTALL VALVE CLOSE TO THE PUMP SUCTION LINE.
2. TURN ELBOW AND INSTALL SECOND ELBOW TO ALLOW PIPE SECTIONS TO BE MOVED WEST AND TEE INSTALLED.
3. EXISTING 1" VALVE WILL BE USED FOR SAMPLE POINT.
4. EXISTING T-110 OVERFLOW LINE WILL BE REMOVED AND NOZZLE USED FOR S-309 WATER CONNECTION.
5. THIS VALVE WILL BE NEEDED ONLY IF PIPING CAN NOT BE COMPLETED DURING TURNAROUND.
6. INSTALL LEVEL CONTROL VALVE, NLCV-1, IN DISCHARGE LINE OF EXISTING P-255. SURPLUS 1" PLUG CONTROL VALVE AND CONTROLLER WILL BE USED.





ENGINEERING CENTER

PONCA CITY, OKLAHOMA

SPECIFICATION SHEET
CONTROL VALVESDATE 3-16-76 S. M. NO. _____

A. F. E. NO. _____

W. O. NO. _____ INQ. NO. _____

REQ. NO. _____ P. O. NO. _____

MADE BY P.H.T. APP'D BY _____PLANT LAKE CHARLES VCM PROJECT OXY. WATER BYPASS OF T-123

GENERAL							
1	ITEM NO. & TAG	<u>NLC-1 (1.)</u>					
2	SERVICE	<u>F-110 EDC</u> <u>PUMP-OUT</u>					
3	LINE SIZE	<u>1 1/2"</u>					
4	MANUFACTURER	-					
5	MODEL NO.	-					
6							
SERVICE CONDITIONS							
7	FLUID	<u>EDC</u>					
8	TEMP. °F	NORMAL	MAX.	<u>10</u>	<u>100</u>		
9	PRESS., INLET	NORMAL	MAX.	<u>77</u>	<u>100</u>		
10	Δ P	MIN.	NORMAL	MAX.	<u>20</u>		
11	MOLECULAR WEIGHT	"A.P.I.		<u>49.0</u>			
12	SP. GR. @ 60°F.	@ 6°F.		<u>1.25</u>	<u>1.20</u>		
13	WEIGHT % VAPOR IN	OUT		<u>0</u>	<u>0</u>		
14	VISCOSITY @ F.T. & P.	<u>0.75</u>					
15	RATE, NOR., LB./HR. @ 60°F. GPM	<u>20</u>					
16	RATE, MAX., LB./HR. @ 60°F. GPM	<u>30</u>					
17	NORMAL FLOW Cv	<u>5</u>					
BODY							
19	BODY SIZE	PORT SIZE		<u>1"</u>	<u>1"</u>		
20	TYPE (ANGLE OR GLOBE)	<u>PLUG</u>					
21	MATERIAL	<u>TEFLON LINED</u>					
22	END CONNECTIONS						
23	BONNET						
24	Cv	<u>25</u>					
25	LUBRICATOR	ISO. VAL.					
26	PACKING	<u>TEFLON</u>					
27	TRAVEL INDICATOR						
28							
TRIM							
29	TYPE INNER VAL	NO. OF PORTS		<u>1</u>	<u>1</u>		
30	PLUG & SEAT MATERIAL						
31							
ACTUATOR							
32	TYPE	<u>AIR</u>					
33	FAILURE POSITION	<u>OPEN</u>					
34							
POSITIONER							
35	INPUT SIGNAL	OUTPUT SIGNAL		<u>YES</u>	<u>YES</u>		
36	BYPASS	GAUGES		<u>YES</u>			
37	MANUFACTURER						
38	MODEL NO.						
ACCESSORIES							
39							

CCR 000039069

NOTES:

1. SURPLUS 1" TEFLON LINED PLUG CONTROL VALVE AND CONTROLLER WILL BE USED.



ENGINEERING CENTER

PONCA CITY, OKLAHOMA

SPECIFICATION SHEET

INDICATORS, RECORDERS, CONTROLLERS

PLANT LAKE CHARLES VCM PROJECT DIY WATER BYPASS OF T-103

A.F.E. NO. _____
DATE 3-16-76 W.O. NO. _____
MADE BY D.H.T. INQ. NO. _____
APP'D BY _____ REQ. NO. _____
D.M. NO. _____ P.O. NO. _____

ITEM NO.	<u>NLC-1(1)</u>		
SERVICE	<u>T-10 EOC LEVEL CONTROL</u>		
INDICATOR OR RECORDER	<u>INDICATOR</u>		
INPUT SIGNAL PNEU. ELEC	<u>PNEU.</u>		
LOCATION YARD - PANEL	<u>YARD</u>		
MOUNTING YOKE - FLUSH			
NO. OF PENS OR POINTERS	<u>1 POINTER</u>		
CHART SIZE - CIRCULAR - STRIP			
CHART RANGE			
CHART NUMBER			
CHART FACTOR			
CHART DRIVE MECH. ELEC			
SCALE RANGE			
CALIBRATED ACCURACY			
SENSITIVITY			
REPEATABILITY			
CONTROLLER LOCATION	<u>YARD</u>		
CONTROLLER ACTION	INPUT	OUTPUT	
PROP. BAND PER CENT			
AUTOMATIC RESET			
DERIVATIVE			
CASCADE - RESET BY			
REPEATABILITY			
SENSITIVITY			
ACCESSORIES			
MANUFACTURER			
MODEL NO.			
PRICE			

GENERAL SPECIFICATIONS

RECORDER INK SUPPLY CAPILLARY WITH 6 MONTHS MIN. SUPPLY
ALL CONTROL STATIONS SHALL HAVE A VALVE POSITION INDICATOR, AUTOMATIC-MANUAL SWITCH, AND DIRECT-REVERSE SWITCH
ELECTRONIC INSTRUMENTS SHALL HAVE A SOLID STATE SYSTEM
ELECTRIC CHART DRIVE 115 VOLT 60 CYCLE SYNCHRONOUS MOTOR
MECH CHART DRIVE 24 HOUR SPRING WIND
PROPORTIONAL BAND COMPLETELY ADJUSTABLE
INSTR. ELEC. CLASSIFICATION IS CLASS 1 GROUP D, DIVISION 2, UNLESS OTHERWISE NOTED

CCR 000039070

NOTES 1. SURPLUS CONTROLLER WILL BE USED.

CONTINENTAL OIL COMPANY

LAKE CHARLES VCM PLANT

LAKE CHARLES, LA.

Design No: 75-100-376-DHJ
VCM - OXYCHLORINATION WATER BY-PASS.

Sheet / Of /

PIPING SCHEDULE

1	2-10-76	OXY WATER BYPASS O.H.I.			
ISU	DATE	DESCRIPTION	IBY	CKD	APD

[illegible]

CCR 000039071

TO: JOHN FRIEND
FROM: DAVID H. JONES
DATE: APRIL 1, 1976
SUBJECT: OXYCHLORINATION WATER BY-PASS OF T-103,
DESIGN NO: 75-100-376-DHJ.

ATTACHED ARE THE PROCESS MODIFICATIONS
REQUIRED TO BYPASS THE OXYCHLORINATION WATER
FROM THE EDC ACID WASH TANK, T-103, TO THE
STEAM STRIPPER FEED DRUM, T-110.

INFORMATION RECEIVED FROM SHELL INDICATES
THAT THEIR LIGHT ENDS COLUMN FOUling WAS SUBSTANTIALLY
REDUCED BY BYPASSING THE OXYCHLORINATION
WATER FROM THE EDC ACID WASH SYSTEM.
SHELL REPORTS THAT WASHING MAY BE ACCOMPLISHED
BY ADDING FRESH WATER TO T-103 WITH
RESIDUAL CHLORINE AND HYDROGEN CHLORIDE IN
THE EDC PROVIDING SUFFICIENT ACIDITY FOR
FERRIC CHLORIDE REMOVAL. SHELL ADDS
APPROXIMATELY 10 GPM PROCESS WATER TO
T-103 TO HOLD THE CONCENTRATION OF
HCL AT 0.5% IN THE WATER LAYER.
SHELL IS DOING THIS IN BOTH THEIR PLANTS.
ALSO, THEY CLAIM SLIGHTLY REDUCED CAUSTIC
CONSUMPTION.

MINOR PIPING MODIFICATIONS WILL ALLOW
BYPASSING THE OXYCHLORINATION WATER
FROM T-103 TO THE NEUTRALIZATION PIT,
T-252, OR T-110 ONCE IT IS INSTALLED.
THERE IS AN EXISTING PROCESS WATER
CONNECTION TO T-103A WITH A ROTAMETER

WHICH WILL ALLOW THE ACID STRENGTH OF THE WATER LAYER OF T-103A TO BE CONTROLLED AT 0.5% HCL. THE WATER LAYER OF T-103A WILL BE ANALYZED ONCE PER SHIFT FOR ACID STRENGTH AND THE EDC LAYER ANALYZED FOR $FeCl_3$ ONCE PER SHIFT. DURING THE FIRST STARTUP OF THIS WASH SYSTEM, BOTH THE WATER AND EDC PHASES WILL BE ANALYZED MORE FREQUENTLY TO BETTER MONITOR THIS WASH CHANGE. AN EXISTING 1" VALVE ON THE LINE FROM T-103A TO P-110, ACID WASH CIRCULATING PUMP, WILL BE USED FOR THE WATER SAMPLE POINT.

SINCE THE OXYCHLORINATION WATER CONTAINS APPROXIMATELY 20 GPM EDC FROM S-306 AND S-307, A LEVEL CONTROLLER AND CONTROL VALVE WILL BE INSTALLED TO CONTROL THE EDC LEVEL IN T-110. THE EXISTING LEVEL TRANSMITTER, LT-115B, ON T-110 WILL BE USED AND A SURPLUS CONTROL VALVE AND CONTROLLER WILL BE INSTALLED IN THE DISCHARGE LINE OF P-255. THE LEVEL CONTROLLER WILL BE LOCALLY MOUNTED DURING THE TEST. IF THE TEST PROVES SUCCESSFUL THE LEVEL CONTROLLER WILL BE BOARD MOUNTED.

DAVID A. JONES
APPROVED BY _____

JAD, JF(5), JRH(4), CEG, JHM, DWL.

TO: JOHN FRIEND
FROM: DAVID H. JONES
DATE: MARCH 2, 1976
SUBJECT: OXYCHLORINATION WATER BY-PASS OF T-103.
DESIGN No:

ATTACHED ARE THE PROCESS MODIFICATIONS REQUIRED TO BYPASS THE OXYCHLORINATION WATER FROM THE EDC ACID WASH TANK, T-103, TO THE STEAM STRIPPER FEED DRUM, T-110.

INFORMATION RECEIVED FROM SHELL INDICATES THAT THEIR LIGHT ENDS COLUMN FOWLING WAS SUBSTANTIALLY REDUCED BY BYPASSING THE OXYCHLORINATION WATER FROM THE EDC ACID WASH SYSTEM. SHELL REPORTS THAT WASHING MAY BE ACCOMPLISHED BY ADDING FRESH WATER TO T-103 WITH RESIDUAL CHLORINE AND HYDROGEN CHLORIDE IN THE EDC PROVIDING SUFFICIENT ACIDITY FOR FERRIC CHLORIDE REMOVAL. SHELL ADDS APPROXIMATELY 10 GPM PROCESS WATER TO T-103 TO HOLD THE CONCENTRATION OF HCL AT 0.5% IN THE WATER LAYER. SHELL IS DOING THIS IN BOTH THEIR PLANTS. ALSO, THEY CLAIM SLIGHTLY REDUCED CAUSTIC CONSUMPTION.

MINOR PIPING MODIFICATIONS WILL ALLOW US TO BYPASS THE OXYCHLORINATION WATER FROM T-103 TO THE NEUTRALIZATION PIT, T-252, OR T-110 ONCE IT IS INSTALLED. THERE IS AN EXISTING PROCESS WATER CONNECTION TO T-103A WITH A ROTAMETER

WHICH WILL ALLOW US TO CONTROL THE ACID STRENGTH OF THE WATER LAYER OF T-103A AT 0.5% HCL. THE WATER LAYER OF T-103A WILL BE ANALYZED ONCE PER SHIFT FOR ACID STRENGTH. AN EXISTING 1" VALVE ON THE LINE FROM T-103A TO P-110, ACID WASH CIRCULATING PUMP, WILL BE USED FOR THE SAMPLE POINT.

Will initially want to sample EDC for FeCl_2 every two hours. Then once per shift.

DAVID H. JONES

APPROVED BY J.R.

JAD, JF(5), JRH(4), CEG, JHM, PE,

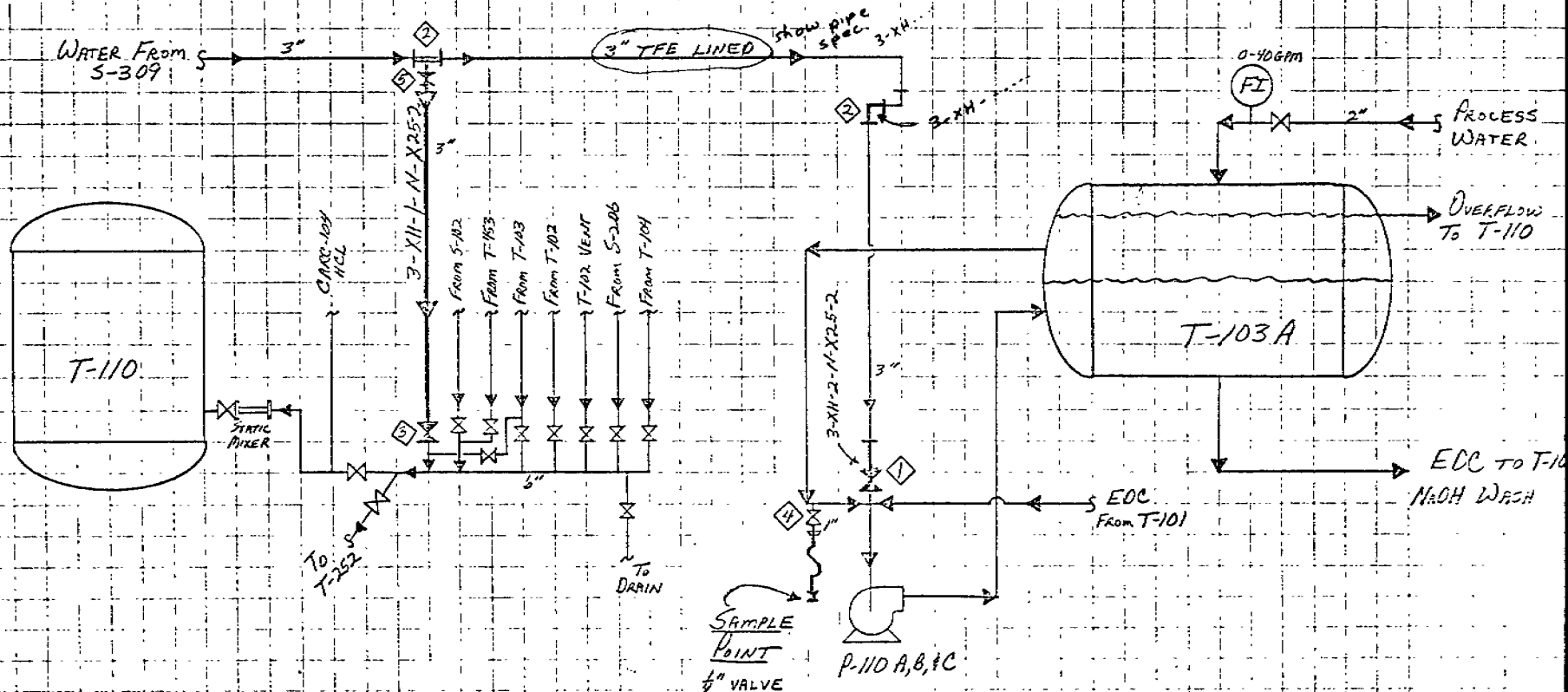
CCR 000039075

LEGEND:

— EXISTING
— NEW
◇ NOTE No.

NOTE:

1. INSTALL VALVE CLOSE TO THE PUMP SUCTION LINE.
2. TURN ELBOW AND INSTALL ^{SECOND} ~~ANOTHER~~ ELBOW TO ALLOW PIPE SECTIONS TO BE MOVED WEST AND TEE INSTALLED.
3. EXISTING T-110 OVERFLOW LINE WILL BE REMOVED AND NOZZLE USED FOR S-309 WATER CONNECTION.
4. EXISTING 1" VALVE WILL BE USED FOR SAMPLE POINT.
5. THIS VALVE WILL BE NEEDED ONLY IF PIPING CAN NOT BE COMPLETED DURING TURNAROUND.



CCR 000039076

LAKE CHARLES, LA.

Design No:
VCM -

Sheet / Of /

PIPING SCHEDULE

CCR 000039077

[illegible]

To: David Jones
VCM Plant
Lake Charles, La.

To: JOHN FRIEND
From: DAVID H. JONES
Date: MARCH 2, 1976
Subject: OXYCHLORINATION WATER BY-PASS OF T-103.
DESIGN No: 75-100-376-DHS.

ATTACHED ARE THE PROCESS MODIFICATIONS
REQUIRED TO BYPASS THE OXYCHLORINATION WATER
FROM THE EDC ACID WASH TANK, T-103, TO THE
STEAM STRIPPER FEED DRUM, T-110.

INFORMATION RECEIVED FROM SHELL INDICATES
THAT THEIR LIGHT ENDS COLUMN FOUling WAS SUBSTANTIALLY
REDUCED BY BYPASSING THE OXYCHLORINATION
WATER FROM THE EDC ACID WASH SYSTEM.
SHELL REPORTS THAT WASHING MAY BE ACCOMPLISHED
BY ADDING FRESH WATER TO T-103 WITH
RESIDUAL CHLORINE AND HYDROGEN CHLORIDE IN
THE EDC PROVIDING SUFFICIENT ACIDITY FOR
FERRIC CHLORIDE REMOVAL. SHELL ADDS
APPROXIMATELY 10 GPM PROCESS WATER TO
T-103 TO HOLD THE CONCENTRATION OF
HCL AT 0.5 % IN THE WATER LAYER.
SHELL IS DOING THIS IN BOTH THEIR PLANTS.
ALSO, THEY CLAIM SLIGHTLY REDUCED CAUSTIC
CONSUMPTION.

MINOR PIPING MODIFICATIONS WILL ALLOW
~~US TO~~ BYPASSING THE OXYCHLORINATION WATER
FROM T-103 TO THE NEUTRALIZATION PIT,
T-252, OR T-110 ONCE IT IS INSTALLED.
THERE IS AN EXISTING PROCESS WATER
CONNECTION TO T-103A WITH A ROTAMETER

WHICH WILL ALLOW US ~~TO~~ ^{to be controlled} ~~CONTROL~~ THE
ACID STRENGTH OF THE WATER LAYER
OF T-103A AT 0.5% HCL. THE WATER
LAYER OF T-103A WILL BE ANALYZED
ONCE PER SHIFT FOR ACID STRENGTH ~~AN~~ ~~AND~~
EXISTING 1" VALVE ON THE LINE FROM T-103A TO P-110, ACID WASH CIRCULATING PUMP, AND TH
WILL BE USED FOR THE SAMPLE POINT. EDC LAY, ANALYZED
INITIALLY
TWO HOURS FOR
FELS THEN
ONCE PER SHIF

SINCE THE OXYCHLORINATION WATER CONTAINS APPROXIMATELY 20 GPM EDC FROM S-306 AND S-307, DURING THE
A LEVEL CONTROLLER AND CONTROL VALVE WILL BE INSTALLED TO CONTROL THE EDC LEVEL IN T-110. THE EXISTING LEVEL TRANSMITTER, LT-115B, ON T-110
WILL BE USED AND A SURPLUS CONTROL VALVE AND
CONTROLLER WILL BE INSTALLED IN THE DISCHARGE
LINE OF P-255. <sup>During the fr
analysis of this
system, both the
water and EDC
analysis will be
analyzed more</sup>

DAVID H. JONES
APPROVED BY J.R.

frequently to better
monitor the wash
change.

JAD, JF(5), JRH(4), CEG, JHM, PE,

CCR 000039079

4-1:2 PC
REV 10-1-82

Page 1 of 1

CCR 000039080

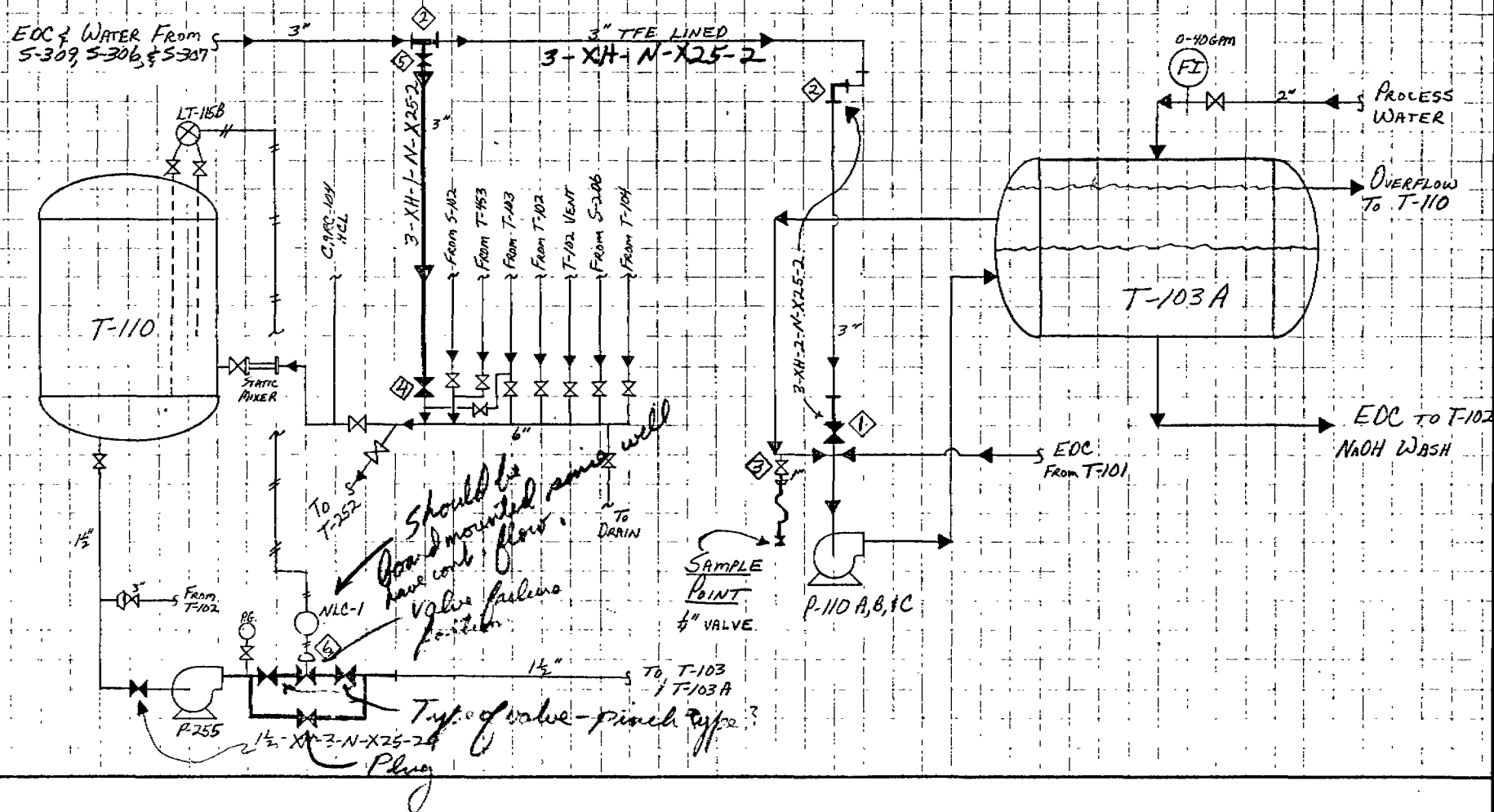
LEGEND:

[illegible]

CONTROL VALVE

NOTE:

1. INSTALL VALVE CLOSE TO THE PUMP SUCTION LINE.
2. TURN ELBOW AND INSTALL ~~SECOND~~ ELBOW TO ALLOW PIPE SECTIONS TO BE MOVED WEST AND TEE INSTALLED.
3. EXISTING 1" VALVE WILL BE USED FOR SAMPLE POINT.
4. EXISTING T-110 OVERFLOW LINE WILL BE REMOVED AND NOZZLE USED FOR S-309 WATER CONNECTION.
5. THIS VALVE WILL BE NEEDED ONLY IF PIPING CAN NOT BE COMPLETED DURING TURNAROUND. ~~← Still needed~~
6. INSTALL LEVEL CONTROL VALVE, NLCV-1, IN DISCHARGE LINE OF EXISTING A-255. SURPLUS 1" PLUG CONTROL VALVE AND CONTROLLER WILL BE USED.





ENGINEERING CENTER

PONCA CITY, OKLAHOMA

SPECIFICATION SHEET

CONTROL VALVES

PLANT LAKE CHARLES VCMPROJECT OXY WATER BYPASS OF T-103DATE 3-16-76 S. M. NO. _____

A. F. E. NO. _____

W. O. NO. _____ INQ. NO. _____

REQ. NO. _____ P. O. NO. _____

MADE BY P.H.T. APP'D BY _____

GENERAL	
1	ITEM NO. & TAG
2	SERVICE
3	LINE SIZE
4	MANUFACTURER
5	MODEL NO.
6	
SERVICE CONDITIONS	
7	FLUID
8	TEMP. °F
9	PRESS. INLET
10	Δ P
11	MOLECULAR WEIGHT
12	SP. GR. @ 60°F.
13	WEIGHT % VAPOR IN
14	VISCOSITY @ F.T. & P.
15	RATE. NOR. LB./HR. (SCFHT GPM)
16	RATE. MAX. LB./HR. (SCFHT GPM)
17	NORMAL FLOW Cv
18	
BODY	
19	BODY SIZE
20	TYPE (ANGLE OR GLOBE)
21	MATERIAL
22	END CONNECTIONS
23	BONNET
24	Cv
25	LUBRICATOR
26	PACKING
27	TRAVEL INDICATOR
28	
TRIM	
29	TYPE INNER VAL
30	PLUG & SEAT MATERIAL
31	
ACTUATOR	
32	TYPE
33	FAILURE POSITION
34	
POSITIONER	
35	INPUT SIGNAL
36	BYPASS
37	MANUFACTURER
38	MODEL NO.
39	ACCESSORIES

NOTES:

1. SURPLUS 1" TEFLON LINED PLUG CONTROL VALVE AND CONTROLLER WILL BE USED.

CCR 000039081



ENGINEERING CENTER

PONCA CITY, OKLAHOMA

SPECIFICATION SHEET

INDICATORS, RECORDERS, CONTROLLERS

PLANT LAKE CHARLES VCM PROJECT OXY WATER BYPASS OF T-103

A.F.E. NO. _____
DATE 3-16-76 W.O. NO. _____
MADE BY DIT INQ. NO. _____
APP'D BY _____ REQ. NO. _____
D.M. NO. _____ P.O. NO. _____

ITEM NO.		<u>NLC-1(1)</u>			
SERVICE		<u>T-110 EOC LEVEL CONTROL</u>			
RECEIVER	INDICATOR OR RECORDER	<u>INDICATOR</u>			
	INPUT SIGNAL PNEU - ELEC	<u>PNEU</u>			
	LOCATION YARD - PANEL	<u>YARD</u> — <u>Board mount</u>			
	MOUNTING YOKE - FLUSH				
	NO OF PENS OR POINTERS	<u>1 POINTER</u>			
	CHART SIZE - CIRCULAR - STRIP				
	CHART RANGE				
	CHART NUMBER				
	CHART FACTOR				
	CHART DRIVE MECH - ELEC				
	SCALE RANGE				
	CALIBRATED ACCURACY				
	SENSITIVITY				
	REPEATABILITY				
CONTROLLER	CONTROLLER LOCATION		<u>YARD</u>		
	CONTROLLER ACTION	INPUT			
		OUTPUT			
	PROP. BAND PER CENT				
	AUTOMATIC RESET				
	DERIVATIVE				
	CASCADE - RESET BY				
	REPEATABILITY				
	SENSITIVITY				
	ACCESSORIES				
	MANUFACTURER				
MODEL NO.					
PRICE					

GENERAL SPECIFICATIONS

RECORDER INK SUPPLY CAPILLARY WITH 6 MONTHS MIN. SUPPLY

ALL CONTROL STATIONS SHALL HAVE A VALVE POSITION INDICATOR, AUTOMATIC-MANUAL SWITCH, AND DIRECT-REVERSE SWITCH.

ELECTRONIC INSTRUMENTS SHALL HAVE A SOLID STATE SYSTEM

ELECTRIC CHART DRIVE 115 VOLT 60 CYCLE SYNCHRONOUS MOTOR

MECH CHART DRIVE 24 HOUR SPRING WIND

PROPORTIONAL BAND COMPLETELY ADJUSTABLE

INSTR. ELEC. CLASSIFICATION IS CLASS 1 GROUP D, DIVISION 2, UNLESS OTHERWISE NOTED

CCR 000039082

NOTES 1. SURPLUS CONTROLLER WILL BE USED.

CCR 000039083

FLOW CHART AND BLOCK DIAGRAM

4-112 PC
REV. 10-1-83

Application BYPASSING OXY. WATER FROM EDC ACID WASH Date FEB. 10, 1976 Page 1 of 1
 Procedure DESIGN No. 75-100-376-DHT Drawn By D.H.J.

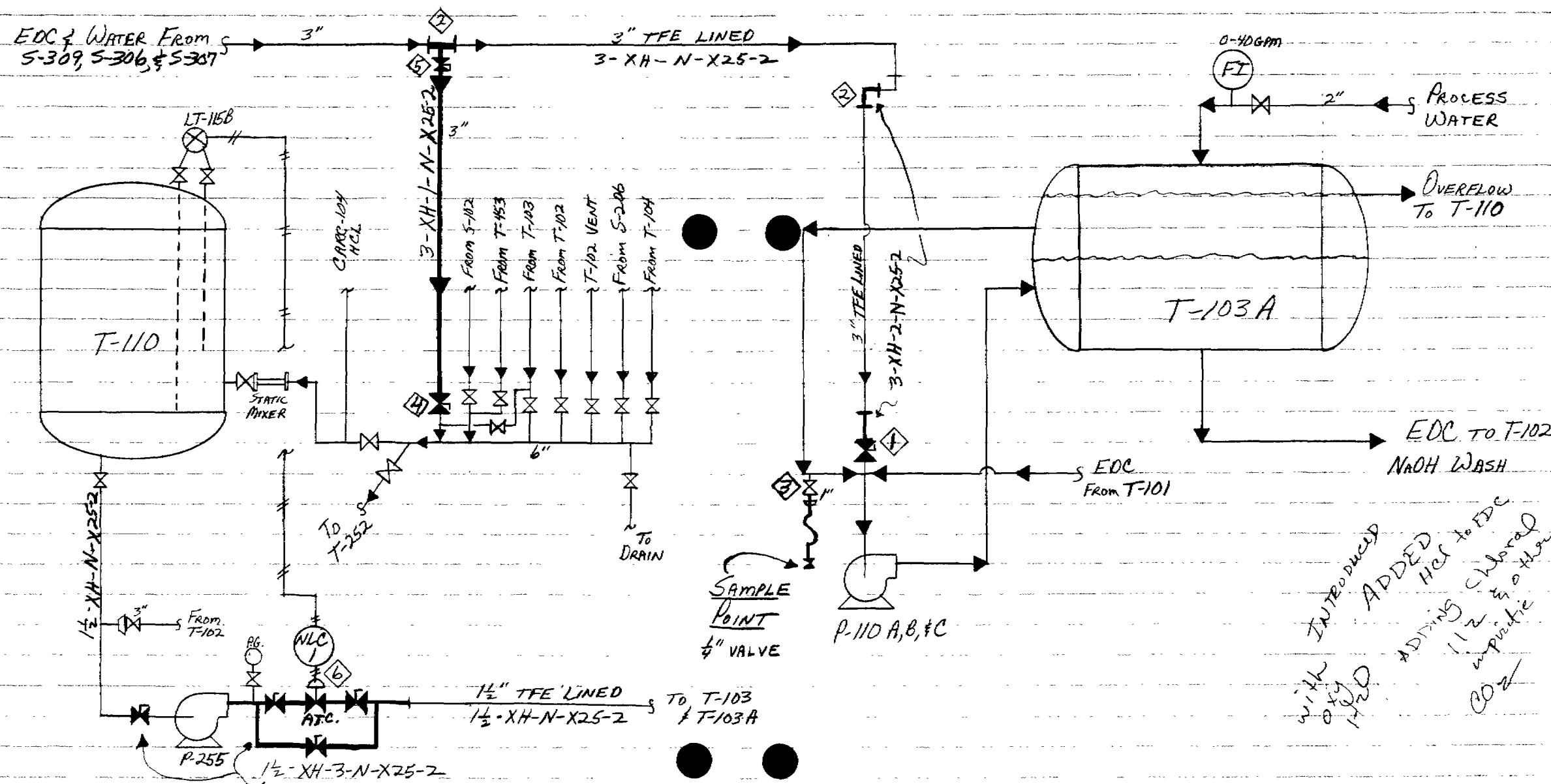
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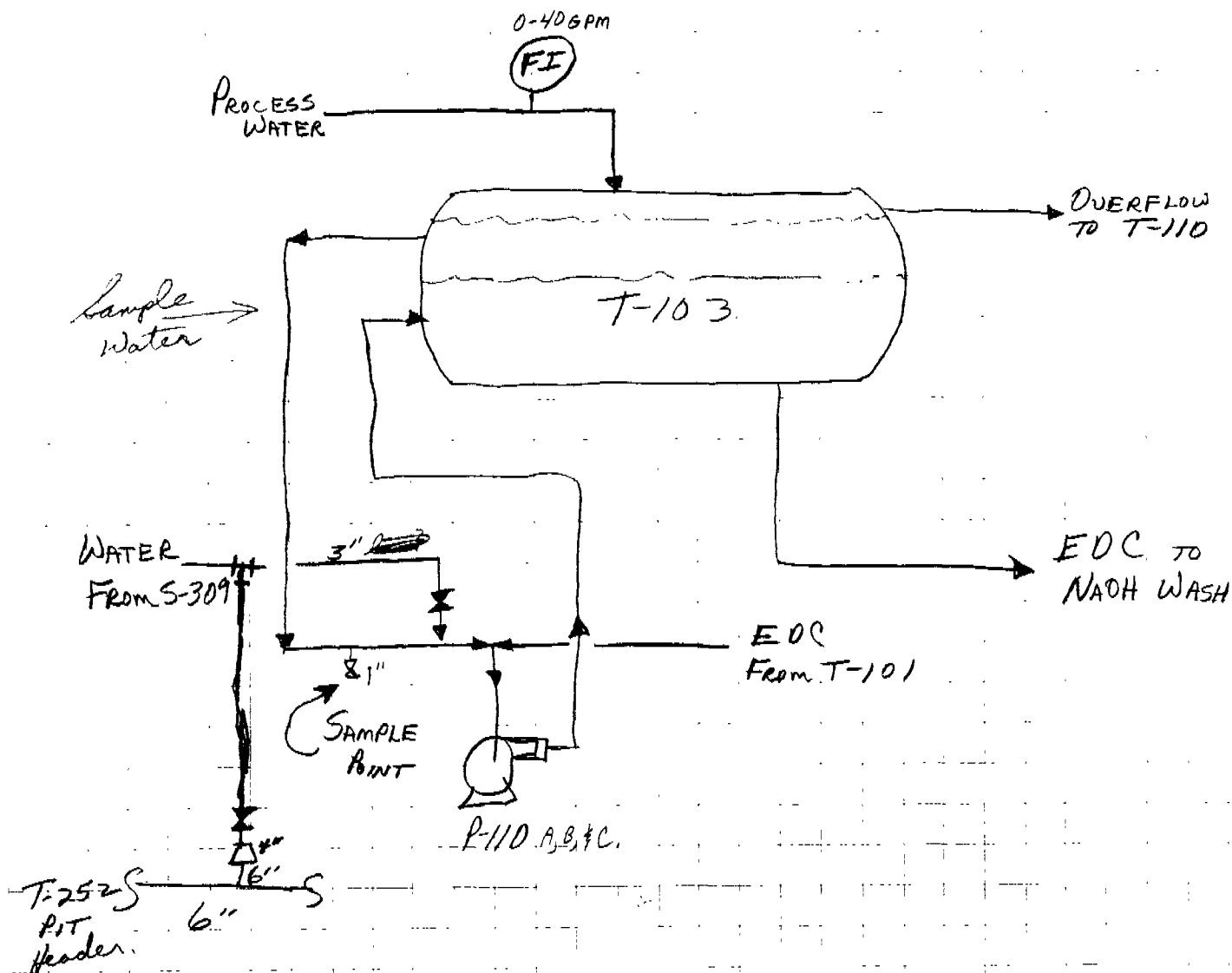
— EXISTING
 — NEW
 ◇ NOTE No.
 ⊠ CONTROL VALVE
 ⊠ TFE LINED PLUG VALVE
 LC LEVEL CONTROLLER

NOTE:

1. INSTALL VALVE CLOSE TO THE PUMP SUCTION LINE.
2. TURN ELBOW AND INSTALL SECOND ELBOW TO ALLOW PIPE SECTIONS TO BE MOVED WEST AND TEE INSTALLED.
3. EXISTING 1" VALVE WILL BE USED FOR SAMPLE POINT.
4. EXISTING T-110 OVERFLOW LINE WILL BE REMOVED AND NOZZLE USED FOR S-309 WATER CONNECTION.
5. THIS VALVE WILL BE NEEDED ONLY IF PIPING CAN NOT BE COMPLETED DURING TURNAROUND.
6. INSTALL LEVEL CONTROL VALVE, NLCV-1, IN DISCHARGE LINE OF EXISTING P-255. SURPLUS 1" PLUG CONTROL VALVE AND CONTROLLER WILL BE USED.

CCR 000039084

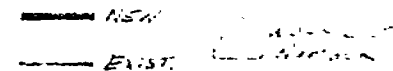




CCR 000039085

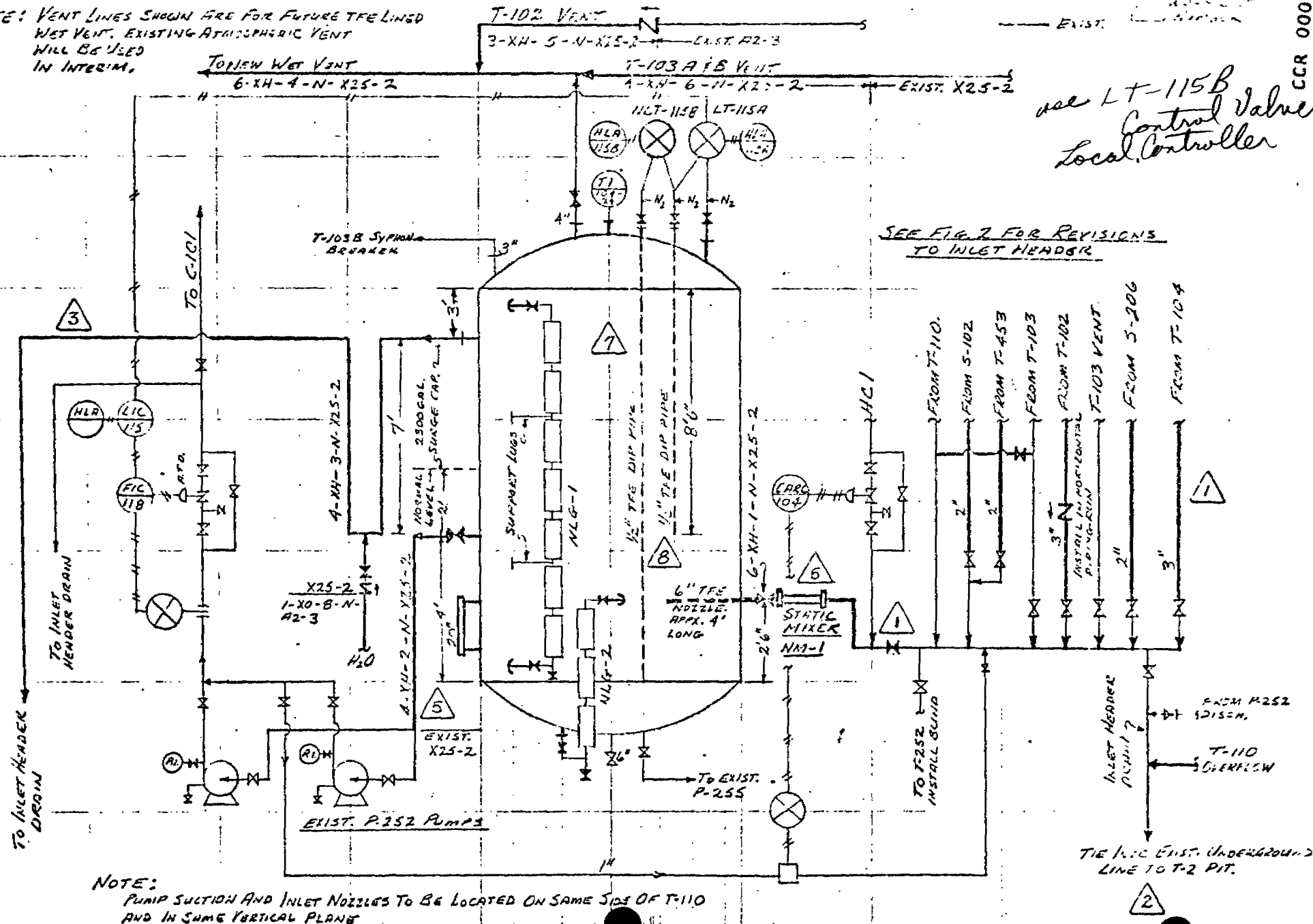
FIG. 1

NOTE: VENT LINES SHOWN ARE FOR FUTURE TFE LINED
WET VENT. EXISTING ATMOSPHERIC VENT
WILL BE USED
IN INTERIM. TO NEW WET VENT



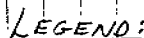
use LT-115B
Control Valve
Local Controller

SEE FIG. 2 FOR REVISIONS
TO INLET HEADER



CCR 000039086

4-113 PC
REV. 10-1-83

Page 1 of 1

EXISTING	NEW	NOTE No.	CONTROL VALVE

NOTE:

1. INSTALL VALVE CLOSE TO THE PUMP SUCTION LINE.
2. TURN ELBOW AND INSTALL ~~ANOTHER~~ ^{SECOND} ELBOW TO ALLOW PIPE SECTIONS TO BE MOVED WEST AND TEE INSTALLED.
3. EXISTING 1" VALVE WILL BE USED FOR SAMPLE POINT.
4. EXISTING T-110 OVERFLOW LINE WILL BE REMOVED AND NOZZLE USED FOR S-309 WATER CONNECTION.
5. THIS VALVE WILL BE NEEDED ONLY IF PIPING CAN NOT BE COMPLETED DURING TURNAROUND.
6. INSTALL LEVEL CONTROL VALVE, NLCV-1, IN DISCHARGE LINE OF EXISTING P-255. SURPLUS 1" PLUG CONTROL VALVE AND CONTROLLER WILL BE USED.

CCR 000039087

John Sognat - Shell Houston

1-23-76

~~220-1863~~
713-479-2331

Questions about bypassing S-309 water from the
acid wash system and BASF catalyst in R-301.

1. How much water do they add and control?
Rotameter adding water. (^{0-20 gpm} 5-10 gpm).

2. Ph meter and location? No.

Strength of acid out of wash system.

Acid strength on outlet. ($\frac{1}{2}$ ~~off~~ HCl .)

then